

**PASSAIC RIVER RI/FS
PROGRESS REPORT #36
REPORTING PERIOD: November 12, 2005 through December 16, 2005
DATE: January 23, 2006**

Contract Number: DACW41-02-D-0003
EPA IAG Numbers: DW96941915 and DW96941975
Task Orders: 0008/0011
Malcolm Pirnie Project Numbers: 0285-924/4553-001, -025, and -027
USEPA Remedial Project Manager: Alice Yeh 212-637-4427
Malcolm Pirnie Project Manager: Len Warner 914-641-2972
Malcolm Pirnie Deputy Project Manager: Scott Thompson 914-641-2628
USACE Contact: Beth Buckrucker 816-983-3581

Summary of Contract Actions					
Task Order	Contract Action	Date Signed	Cost	Fee	Total Cost
0008	ATP 1	10/15/02	\$791,654	\$60,956	\$852,610
0008	ATP 2/WVN1	2/4/03	\$0	\$0	\$0
0008	ATP 3/WVN2	9/22/03	\$0	\$0	\$0
0008	ATP 4/WVN3	7/28/04	\$9,771	\$526	\$10,297
0008		Subtotal➔	\$801,425	\$61,482	\$862,907
0011	ATP 1	3/11/03	\$306,945	\$18,317	\$325,262
0011	ATP 2/WVN 1	9/10/03	\$-695	\$695	\$0
0011	ATP 3/WVN 2	11/6/03	\$0	\$0	\$0
0011	ATP 4/WVN 3	12/1/03	\$475,486	\$8,341	\$483,827
0011	ATP 5/WVN 4	2/4/04	\$88,305	\$24,943	\$113,248
0011	ATP 6/WVN 5	4/29/04	\$146,361	\$8,842	\$155,203
0011	ATP 7/WVN 6	5/17/04	-	-	-
0011	ATP 8/WVN 7	8/27/04 – verbal authorization	\$1,235,822	\$77,345	\$1,313,167
0011	Interim WVN	2/23/05 via e-mail	\$0	\$0	\$0
0011	ATP 9/WVN 8	3/31/05	\$880,962	\$45,319	\$926,281
0011	ATP 10/WVN 9	9/6/05	\$3,605,524	\$194,624	\$3,800,148
0011	ATP 11/WVN 10	11/17/2005	\$893,856	\$56,126	\$949,982
0011		Subtotal➔	\$7,632,566	\$434,552	\$8,067,118
			Grand Total Authorized Amount; TO 0008/0011		\$8,930,025

1. Progress Made This Reporting Period.

WAD 01

This WAD has been closed.

WAD 02

This WAD has been closed.

WAD 03

Closure of this WAD is planned upon completion of WO 04, WE 4.2d. Under WE 4.2d, the Minish Park sediment chemistry data was uploaded to PREmis and is currently undergoing QC review.

WAD 04

Malcolm Pirnie (Pirnie), Battelle, and HydroQual (HQI) participated in bi-weekly conference calls on November 15 and 29, 2005 with project team members from USEPA Region 2 and USACE – KC District. The bi-weekly conference calls are generally scheduled for every other Tuesday at 9:30 AM ET.

Topics discussed during the November 15th call included efforts to process the TSI ADCP data for the hydrodynamic model calibration; HQI's preparation of a memo responding to TAC comments on the sediment transport modeling and tentative schedule for a TAC teleconference, the need for solids monitoring data at the Dundee Dam (grab samples and event monitoring) and consideration of other sediment inflow patterns (*e.g.*, landside sediment transport during large rainfall events); direction from Alice Yeh that HQI limit their response to demaximis info requests to material currently planned for inclusion in the Hydrodynamic Modeling report; a request from USEPA that an updated low resolution coring location drawing be provided by November 30th and delivered to the Sampling Workgroup by December 5th; a request for a teleconference regarding high resolution core archived sample selection; progress of the dredging pilot fact sheet preparation; a request from USEPA for a discussion of interconnections between the IRM evaluation and USACE-NY's Sediment Management Plan at the November 22nd PM Meeting, MPI's submittal of the data validation subcontractor consent package to USACE, and a review of the PREmis action items.

Topics discussed during the November 29th call included the inclusion of the 1995 and 1996 TSI data in the hydrodynamic model; a planned visit by Bill Potter of demaximis, inc. to HQI to discuss the CARP model; the schedule for the next Modeling Workgroup meeting (in January prior to the release of the Hydrodynamic Modeling Report?); HQI's discussions with Earl Hayter regarding future methods to check the interfacing of SEDZLJ with ECOMSED and the carbon models; a summary of the November 22nd meeting between Battelle, USEPA, and NJDEP to discuss fish consumption rates; direction from Alice Yeh that unpublished NJDEP data should be considered in the development of consumption rates; the submittal of an interim Geochemical Evaluation memo; the need for revisions to the project schedule for IRM and Geochemical Evaluation tasks; the need for a response on the data validation subcontract consent package from USACE by end of December 2005; a presentation by Ed Garvey on the selection of high resolution cores for chemical analyses; the completion of the preliminary screening and the beginning of alternative assembly for the IRM evaluation; plans for a remedial options workgroup meeting in January 2006; and a number of specific comments for updating the project schedule.

Pirnie, Battelle, and HQI participated in weekly internal briefing calls with Pirnie task leaders and Battelle and HQI project managers. These calls are scheduled on Monday mornings from 9:30-10:30 AM ET.

On December 14, 2005 Pirnie submitted a Progress Report and revised Budget Status and Forecast (BSF) covering the period from October 15 to November 11, 2005 to the USACE and USEPA. HQI and Battelle submitted progress reports and reports of expenditures to Pirnie in support of this effort.

A Project Management (PM) Meeting was held on November 22, 2005. Lisa Baron (NJDOT-OMR), Beth Buckrucker (USACE-KC), Scott Nicholson (USACE-NY), Alice Yeh (USEPA), and Bruce Fidler, Scott Thompson, and Len Warner (MPI) attended the PM Meeting. Topics discussed included the anticipated availability of the CARP model and output in mid- to late-2006; current availability of the Sedflume report on USACE's FTP site; the need to assemble presentations for Congressional briefings anticipated to occur in late February/early March of 2006; potential topics for such presentations [geochemical evaluation and interim remedial measures evaluation (up to assembly of alternatives task)] and use of upcoming PDT meetings as a venue for initial presentations; development of a Sediment Management Plan by USACE-NY; the proposed scope of the interim remedial measures (IRM) evaluation and remedial alternatives likely to be considered; the need for further discussion with agencies regarding the evaluation criteria for IRM benefits (risk vs. mass); potential 2006 WRDA funding for economic analysis, revision of the PMP, NEPA scoping (need PRP comments on Restoration Opportunities Report), Dundee Dam monitoring, Field Sampling Plan Volume 2, and ecological functional assessment metrics; the status of the geophysical report due from Aquasurveys, Inc. (ASI), including anticipated delivery of the report to MPI on or about November 30th, the limited utility of the sub-bottom profiling data, and ASI's

incorporation of MPI's comments on graphical presentation and other data use issues; HQI's funding status for upcoming meetings and direction from USEPA that HQI not prepare any presentations for the BERA workshop, and a decision to postpone teleconferences on sediment transport and hydrodynamic modeling until late December.

Final CIP preparation activities are on hold pending further direction from USEPA/USACE. At the request of Alice Yeh and David Kluesner, MPI prepared a dredging pilot fact sheet to support the NJDOT-OMR dredging pilot on the Passaic River.

WAD 05

Work efforts in this WAD were focused on the following project elements: Field Activities; Laboratory Issues/Subcontracts; Planning Documents; and Risk Assessment. These topics are discussed below.

FIELD ACTIVITIES

Hydrodynamic Data/Moored Instrumentation

The mooring data collection scope of work is complete, although one set of equipment was loaned to Rutgers University for the Dredging Pilot and will continue to accrue equipment rental costs through December 2005.

Water Column Sampling Program

The second round of semipermeable membrane devices (SPMDs) were retrieved from the Passaic River locations (RM 0, 2.5, 4.5 and 10.5) on November 29th.

High Resolution Coring

Approximately 120 sediment samples have been submitted to AXYS for polyaromatic hydrocarbons (PAH) analyses. These samples have been extracted and are at different stages of processing at the lab. The first 3 batches of samples were extracted prior to seeing any data regarding contaminant levels and matrix interferences. Every sample from these first 3 batches (50 samples in total) has required dilutions, some requiring large serial dilutions and re-spiking of the surrogate standard. Based on preliminary data from the first 3 batches, Axys used a smaller sample size and took only one tenth of the extract to the instrument for the other 70 samples. Axys anticipates data delivery for these samples during the week of January 9th.

On December 13th, USEPA was contacted and approval requested to submit 35-40 segments for CLP metals analyses from each selected high resolution core instead of approximately 22 segments (prepared by homogenizing adjacent segments). The analysis of the individual core segments for metals will provide better resolution of the

depositional history, potentially aid in the interpretation of the organic analysis results, and provide a more detailed basis to match core layers across cores. The additional cost to EPA CLP would be offset by a labor savings due to the avoided homogenization/sample prep field effort. USEPA granted approval for the request.

A summary of the selected high resolution cores and samples shipped for laboratory analysis is attached to this progress report.

PLANNING DOCUMENTS

A review of FSP Volume 1 document organization, as posted on PREmis, was initiated in preparation for posting to the public website (in anticipation of low resolution coring activities). The inclusion of some clarifying notes to reviewers and minor document organization revisions were initiated (*e.g.*, SOP numbering, identification of the date/version of the hydrodynamic work plan attachment) in response to initial comments from USACE on December 7, 2005.

FSP Volume 2 preparation activities are currently on hold.

RISK ASSESSMENT

The BERA workshop was conducted on December 13-14, 2005 at USEPA Region 2. Battelle provided a summary of the meeting discussions and slides in an email dated December 21st. The meeting minutes were reviewed by the project team and approved by Alice Yeh of USEPA in an email dated December 28, 2005.

The following activities were conducted for the Conceptual Site Model/Problem Formulation task.

- Ecorisk activities (N. Richardson, D. Gunster-Battelle) included the following:
 1. Preparation of CSM-related materials to support the BERA Workshop (*e.g.*, ecological receptors [freshwater/estuarine]). Fish survey data collected at the mouth of the Third River (Third River Watershed Characterization Study, Final Report; Clifton Health Department/Clifton Environmental Protection Commission; September 1999) provides useful information concerning the freshwater fish community associated with the study area. This information will be evaluated in updating the ecological CSM to include both freshwater and estuarine components (as agreed to during the Workshop). Information and suggestions regarding ecological receptors that were discussed during the BERA Workshop will be synthesized in order to finalize the CSM and ecological receptor subtasks.
 2. Following up on discussions during the 11/22/05 risk assessment/modeling teleconference with HydroQual and with Dr. Farley during the Workshop, continued evaluation of approaches to developing Exposure Point Concentrations (EPCs). Considerations include (i) the primary role of supplemental sampling of abiotic media (estimating current conditions versus model validation); (ii)

- decision criteria for incorporating historical analytical data; and (iii) robustness of the modeling grid for deriving spatially-explicit EPCs for selected ecological receptors.
3. With clarification of the modeling focus (biotransfer to fish trophic levels), development of BSAFs focused on identifying a subset of transfer factor necessary to estimate wildlife tissue burdens based on consumption of contaminated prey. Two applicable data sets were identified (herring gull and mink uptake for dioxin/furan congeners) and tabulated.
 4. Continued progress compiling ecotoxicological data for ecological risk drivers (e.g., dioxin/furan, mercury, PCBs, DDT, dieldrin, PAHs, select metals).
 - Human health risk activities (P. Rodgers) included the following:
 1. A summary of the literature review conducted for cooking loss was developed. Included in the summary were recommendations for cooking loss for the COPCs.
 2. A summary of the Census and NJ angler survey data reviewed for derivation of a site-specific Exposure Duration (ED) was compiled. This summary document only reports and summarizes the data that were available for review. However, a site-specific ED has not been determined (yet) because EPA has not received the survey data from NJDEP that would be extremely helpful in deriving an ED specifically for the site. Part of the ED is based on the age when the angler began fishing and how long the angler has fished, in addition to how long he has been a residence of the counties along the Passaic (residence time is based on Census data). Therefore, it is recommended that examination of the NJDEP 1995 and 2005 survey data be conducted before a site-specific ED is derived.
 3. Fish species considered for the HHRA were identified as those fish species under the fish advisories based on NJDEP's surveys (NJDEP is concerned with 6 species under advisories: American eel, white perch, striped bass, blue crab, bluefish, and white catfish). Blue crab should be included as a species to sample. As for fish, it is recommended that the more commonly consumed species be sampled; however, the more commonly consumed fish can be identified from the NJDEP surveys, which we have not been able to examine yet. Therefore, it would make sense to identify the fish species after the survey data have been examined, or as an alternative 2 -3 of the five species under a fish advisory, that also coincide with ecological concerns, can be sampled.
 4. Per suggestion of Region 2 risk assessor, a review of the lead biokinetic uptake model for HHRA was conducted in order to determine if lead should remain a COPC for fish tissue. Lead concentrates in the bones and, therefore, evaluation of this COPC via fish ingestion as a filet and not whole fish was under question. The lead model for children (IEUBK) can incorporate fish tissue concentrations and because children and pregnant women are sensitive receptors to lead, EPA decided that lead should remain a COCP. In addition, a quick look at the literature to see if lead concentrates in the soft shell crab was conducted to support the need to keep lead a COPC. Information on lead in soft shell crabs was not found.
 5. A 1-page summary of the Battelle visit to NJDEP on 11/22/05 was prepared by Battelle and provided to Malcolm Pirnie for PREMIS.

6. A conference call with EPA Region 2, Battelle, and Malcolm Pirnie was held on 11/30/05. The discussions included a summary of the NJDEP visit and update on the lead biokinetic model inputs in order to determine whether lead should be a COPC for HHRA for the fish consumption pathway. EPA decided to leave lead a COPC, but indicated that sampling fish tissue for lead should be limited.
7. A list summarizing data needs for the NJDEP 1995 survey was compiled by Battelle and reviewed by EPA before EPA forwarded it to NJDEP. The list of questions was geared towards collecting the necessary information to derive fish consumption rates. NJDEP was going to query their data to address the questions. No information on whether NJDEP has started to query the data.

MODELING

For the Hydrodynamic Modeling effort, HQI continued work related to the Model Calibration:

- Prepared model input for 10 water years (1995 through 2004) of hydrodynamic data; re-running calibration runs.
- Reviewed TSI RI/FS work plan prepared in 1995 and Executive Summary in 2003 for details of field survey programs.
- Continuing processing model results in 1995 and 1996 water years to compare with TSI hydrographic survey data (processed transect ADCP, temperature and salinity data to compare with model results); model-data correlation statistic; harmonic analyses of tidal elevations and currents.
- Processed Rutgers 2000-2003 ADCP sensor data and compared with model results; reviewed the results and continuing data reduction for better comparison.
- Began writing hydrodynamic reports:
 - a. Description of model forcing data.
 - b. Model-Data calibration procedures.
 - c. Statistical analyses for model skill assessment for data collected in Passaic, Newark Bay, and the Kills by TSI and Rutgers.

For the Sediment Transport Modeling effort, HQI conducted the following tasks:

- Mass balance assessment of solids entering the Passaic River still in progress. New plots of radionuclide data generated, along with computation of bathymetry changes.
- Analysis of grain size data from Sedflume experiments data still in progress.
- Flocculation work still in progress between Kevin Farley and Bill McAnally.

WAD 06

Work efforts in this WAD were focused on preparation of the following topics: Website/Database and Historical Geochemical Data Evaluation. These topics are discussed below.

WEBSITES/DATABASE

Pirnie performed the following work for the field application and PREmis (private) website:

- Updated the CAS list in the website to account for new CAS numbers from Axys Analytical.
- Did some troubleshooting to find out why Beth Buckrucker was not receiving request module notifications - the issue was due apparently due to email filter settings at USACE.
- Provided assistance to the field crew with sample data entry.
- Modified the Forms II Lite download to download samples based on shipped dates, not collected dates.
- Created a download Access report for all validated and approved non-historical data.
- Uploaded Minish Park data to the website.
- Began uploading the TAMS dredging data to the website.
- Revised the menu structure on PREmis to make all menu items visible (they were running off the page).
- Assisted analytical laboratories with upload of the first EDDs.
- Finished programming the sample archive creation module.

Ongoing routine maintenance (*e.g.*, updating news items and meeting announcements) occurred on *ourPassaic.org*.

HISTORICAL/GEOCHEMICAL DATA EVALUATION

Geochemical analysis tasks completed during late November and early December 2005 were primarily focused on developing the Summary of Interim Studies memorandum and in setting up the analyses of TSI 1995 data. The Summary of Interim Studies memo describes geochemical-related analyses conducted between May and November 2005 by HQI, Battelle, and MPI, which were used to guide the development of planning documents and field programs. HQI revised their geochemical evaluation plots in early December for inclusion in the December memo. The memorandum was put into internal review on December 8 and posted to PREmis on December 23rd.

Geochemical data evaluations conducted in late November and early December centered on sediment mass balance estimation using bathymetric data and geotechnical borings and on preliminary review of chemical data, specifically Mass Per Unit Area calculations, derived from the TSI data set. The Task Leader has reported that the geochemical evaluation effort continues to meet schedule and budget expectations.

WAD 07

For the IRM evaluation, low resolution coring locations were developed using the estimates of contaminant mass per unit area (MPA) prepared during the last reporting period. The proposed coring locations were submitted to USEPA on or about November 22nd. Preliminary alternatives for the IRM were assembled along with associated preliminary cost alternatives and presented during the PM meeting on November 22nd.

2. Issues and Recommended Solutions (or Outstanding Issues).

- **Technical**

The selection of a sediment transport model was identified as a technical issue in last month's progress report. Efforts are still ongoing to contract with Craig Jones to assist in the implementation of SEDZLJ in the ECOM and ST-SWEM (carbon) models, including COI screening and preliminary planning for a model integration meeting at HQI.

- **Schedule**

A revised schedule was e-mailed to USACE on December 16th and will be subsequently finalized and posted to PREmis (expected December 23, 2005).

- **Funding**

Expenditures on WAD 04, WE 1.3c, Professional Subcontractors, exceeded forecasts due to the need to prepare authorizations for the TAC for the December 20th modeling teleconference and for HQI and Battelle to address final disbursements of 2005 funding. The planned corrective action is to prepare 2006 authorizations for project administration for HQI and Battelle and then shut down the task by the end of January 2006.

Project communication expenditures during the current period exceeded the monthly forecast due to technical communication, coordination calls, and the BERA workshop. The planned corrective action is to reduce project communication expenditures by limiting internal team coordination calls to a monthly frequency and continue to monitor project budgets.

A number of invoices were received from Battelle for the planning documents in WAD 05, WO 01. These costs will be addressed via WVN 11 using available funding from planning document tasks, primarily WAD 05 WE's 1.5b and 1.6a.

HQI's EV reporting indicates a cost overrun on the sediment transport model, WAD 05, WE 6.1b. HQI was contacted and is conducting an internal evaluation since the EV's are based on estimated technical progress. HQI is aware of the amount and lump sum nature of their authorizations.

The Feasibility Study task, WAD 07, WE 1.1 has been shut down. Any overruns will be addressed by funding from WAD 07, WE 1.2.

WVN 11 is under preparation to address the expenditures on the Private Website Maintenance Task, WAD 06 WE 3.4, which have exceeded the authorized total, and to reallocate funding where appropriate to extend the project management effort through the end of March 2006.

3. Anticipated/Planned Activities in Next 30 Days

Anticipated meetings, conference calls, and activities are organized by topic and presented below.

General/Project Management

Community Involvement

- As directed, Pirnie has suspended work on the CIP support activities. Work is expected to commence in late January 2006 to prepare the Final CIP.

Laboratory Issues

- A final SDG of high resolution core sediment samples will be submitted to Axys for PAH analysis on January 4th.
- PAH results for the first 120 high resolution core sediment samples submitted to Axys are expected to be received on or about the week of January 9, 2006.

Field Activities

Sediment Coring and Water Column Sampling

- Low Resolution Coring is scheduled to commence on or about January 9, 2006.
- High resolution core sediment samples will be shipped for PCB congener and dioxin analyses during January to February 2006.

Risk Assessment

- For WAD 5, WO 2.2 – CSM/Problem Formulation Task Plan, the following tasks will be conducted:
 - Refinement of the CSM will continue using information gathered from the BERA Workshop. During the next period Battelle will begin to complete the CSM task by preparing final deliverables. The deliverables are described below:
 1. Revised COPC/COPEC lists and CSM
 2. Technical memorandum defining proposed methods for calculating EPCs
 3. Technical memorandum summarizing revisions to exposure assumptions proposed in the PAR; memorandum expected to consist primarily of tables that provide the updated values and documentation of the information sources.
 4. Technical memorandum including tables and appropriate documentation that summarize additional ecological TRVs, fish tissue Critical Body Residues (CBRs), and toxicity values for the Human Health Risk Assessment.
 - These technical memoranda will consist primarily of tables providing updated values and documenting sources of information with brief supporting text.
 - The draft deliverables for the CSM task are projected to be posted for USEPA and USACE review by 2/24/06.
- For WAD 5, WO 2.2c, Weight of Evidence Approach for Ecological Risk Assessment, work has not yet been initiated. DQO refinement is recommended as the next critical step in the risk assessment process, prior to completion of the FSP2 and the WOE Approach tasks. The objective of the DQO refinement phase would be to reach consensus on how the risk assessment data needs can be met most efficiently within cost constraints. This is a logical extension of the BERA Workshop. This approach would require approval for re-orientation of the effort currently authorized for the weight of evidence task.

Planning Documents

- The incorporation of USEPA and USACE comments to FSP Volume 1 will be verified and upon client approval, the final planning documents will be posted to the public website.

Modeling Work Plan/Modeling Efforts

- HQI and Pirnie will provide responses to TAC and stakeholder comments on the Draft Modeling Work Plan and begin preparation of the Final Modeling Work Plan.
- For the Hydrodynamic model:

- Further runs will be conducted and analyzed
 - Further work will be conducted to prepare the Hydrodynamic Model Report.
 - A Modeling Workgroup meeting may be held in January 2006.
- For the Sediment Transport model, HQI will:
 - Continue solids mass balance analysis.
 - If approved by USEPA and USACE, a meeting will be arranged with Craig Jones to begin planning for the integration of SEDZLJ.

Historical/Geochemical Data Evaluation

- Completion of deposition rate analyses/sediment mass balance calculations.
- Determination of benchmark chemicals for further analyses.
- Continuation of mass per unit area analyses.
- Evaluation of chemical occurrences in 14 datable cores and in surface samples.

Website/Project Database

- Pirnie personnel will support upcoming utilization of the Sediment Coring module during the low resolution coring event tentatively scheduled for January 2006.
- Pirnie will schedule a teleconference with USEPA and USACE to address the development of management website reports (January 13th).

4. Key Personnel Additions or Changes

None.

5. Attachments

Budget Status and Forecast, Reporting Period: November 12 – December 16, 2005.

Core Identification	River Mile	Collection Date	Processing Date(s)	Status ⁽¹⁾	Explanation	Number of Radiological Samples Shipped During Core Processing ⁽²⁾	Number of Additional Radiological Samples Shipped (Shipment Date)		Number of PAH Samples Shipped (Shipment Date)		Number of Metal Samples Shipped (Shipment Date)	
5A	1.1	9/14/05	9/16/05	Rejected	Low overall Cs-137 levels, Cs-137 maximum <0.5 pCi/g; core 7A more acceptable for RM 1	27						
7A	1.4	9/19/05	9/20/05	Selected	Cs-137 maximum at 220 cm; clear Cs-137 decline	21	11	(12/01/05)	24	(12/01/05)	41	(12/20/05)
9A	2.2	9/20/05	9/21/05	Selected	Cs-137 maximum at 420 cm; clear Cs-137 decline	21	10	(12/01/05)	26	(12/01/05)	43	(12/20/05)
10A	2.6	9/21/05	9/22/05	Question	Unusually low Cs-137 values in some layers; core 9A more acceptable for RM 2	24	11	(12/01/05)				
10D	2.6	9/22/05	9/23/05	Rejected	High Cs-137 value at surface; Cs-137 profile too symmetric	22	5	(12/01/05)				
17A	3.5	9/26/05	9/27/05	Selected	Cs-137 maximum at 40 cm; clear Cs-137 decline, potentially long depositional history	19	3	(12/01/05)	25	(12/07/05)	36	(01/04/06)
17D	3.5	9/26/05	9/27/05	Rejected	High Cs-137 value at surface; profile does not match duplicate (Core 17A)	20	9	(12/01/05)				
18A	4.1	9/27/05	9/28/05	Rejected	High Cs-137 value at surface; core 17A more acceptable for RM 4	21						
24A	6.4	10/10/05	10/13/05	Question	Dredged material above Cs-137 peak, continuous deposition not certain	11						
24D	6.4	10/11/05	10/13/05	Question	Dredged material above Cs-137 peak, continuous deposition not certain	11						
26A	7.8	10/11/05	10/13/05	Selected	Cs-137 maximum at 80 cm >2 pCi/g	16	5	(12/15/05)	20	(01/04/06)	31	(Week of 01/09/06)
26B	7.8	10/11/05	10/24/05	Question	Fairly good match to original but metals samples obtained from duplicate (Core 26A), consistent with other 5 core sites.	14	TBD ⁽³⁾					
13A	10.0	10/21/05	10/24/2005, 10/25/2005	Rejected	No clear Cs-137 peak; maximum at surface, minimal Cs-137 penetration into sediments.	22						
13D	10.0	10/21/05	10/25/2005, 10/26/2005	Rejected	No clear Cs-137 peak; maximum at surface, minimal Cs-137 penetration into sediments.	25						
28A	10.8	10/24/05	10/26/05	Rejected	High Cs-137 value at core bottom, vertical silt/sand boundary in lower portion of core, depositional history uncertain	15						
28D	10.8	10/24/05	10/26/05	Rejected	High Cs-137 peak but vertical silt/sand boundary in lower portion of core, depositional history uncertain	11						
29A	11.0	10/7/05	10/11/2005, 10/12/2005	Selected	Cs-137 maximum at 100 cm; clear Cs-137 decline, potentially long depositional history	26	10	(12/07/05)	29	(12/15/05)	52	(01/04/06)
29D	11.0	10/10/05	10/12/05	Rejected	No Cs-137 maximum; Cs-137 concentration <0.5 pCi/g	25						
1A	12.3	10/6/05	10/10/2005, 10/11/2005	Rejected	No Cs-137 maximum; Cs-137 concentration <0.5 pCi/g	18						
1D	12.3	10/7/05	10/11/05	Rejected	No Cs-137 peak	25						
32A	12.6	10/6/05	10/7/05	Selected	Large Cs-137 maximum at 135 cm, recent deposition limited to ~1960 and later	17	8	(12/01/05)	24	(12/07/05)	37	(Week of 01/09/06)
32D	12.6	10/6/05	10/10/05	Rejected	Double Cs-137 peak; profile does not match duplicate (Core 32A)	22	TBD ⁽³⁾					
37A	18.0	10/4/05	10/5/2005, 10/7/2005	Rejected	No Cs-137 presence below surface	20						
37D	18.0	10/4/05	10/7/05	Rejected	No Cs-137 presence below surface	26						
Totals-All Cores						479	72					
Totals-Selected Cores						120	47		148		240	

Notes

- (1) Selected = core selected for further analysis. Rejected = no further high resolution core analysis, although core may still be used for low resolution core analysis. Question = possible core to be considered in the event a selected core does not work out.
- (2) Total organic carbon (TOC) samples were also shipped out during core processing. The number of TOC samples shipped was approximately two times the number of radiological samples shipped during core processing (i.e., 2*479 or ~958), representing one TOC sample for each core layer obtained.
- (3) TBD = To be determined

